

Annual Report 2014



**Prepared by the Department of Social Services
For the Missouri General Assembly**

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Introduction and Scope of the Evaluation

The Missouri Department of Social Services is submitting this annual report to the General Assembly on Missouri's program for health care for uninsured children — the Children's Health Insurance Program (CHIP) — as required by Section 208.650 of the Revised Statutes of Missouri. The CHIP program operated as part of a Medicaid Section 1115 Healthcare Demonstration Waiver program (1115 Waiver) between September 1, 1998 and September 30, 2007. The 1115 Waiver originally expanded eligibility to uninsured children, adults leaving welfare for work, uninsured custodial parents, uninsured non-custodial parents, and uninsured women losing their Medicaid eligibility 60 days after the birth of their child.¹ Effective September 2007, Missouri's CHIP program began operating as a combination Medicaid/CHIP program, MO HealthNet for Kids.

The Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA) reauthorized CHIP until FFY 2013. The Patient Protection and Affordable Care Act (PPACA), enacted in 2010, appropriated funding to CHIP through FFY 2015 and provided a 23% increase in the CHIP match rates, with a cap of 100% for fiscal years 2016 through 2019. PPACA maintenance of effort requirements for the CHIP program require states to maintain income eligibility thresholds and not impose any procedures, methodologies, or other requirements that make it more difficult for people to apply for or renew their CHIP eligibility.

Missouri provides presumptive eligibility for children in families with income of up to 150% of the federal poverty level (FPL). The table below lists the income eligibility thresholds for CHIP.

Program Age Group	0-100% FPL	101-133% FPL	134%-150% FPL	151%-185% FPL	186%-300% FPL
Children 0-1	Medicaid (Non-Premium)	Medicaid (Non-Premium)	Medicaid (Non-Premium)	CHIP (Non-Premium)	CHIP (Premium)
Children 1- 5	Medicaid (Non-Premium)	Medicaid (Non-Premium)	Medicaid (Non-Premium)	CHIP (Premium)	CHIP (Premium)
Children 6-18	Medicaid (Non-Premium)	Medicaid (Non-Premium)	Medicaid (Non-Premium)	CHIP (Premium)	CHIP (Premium)

Beginning September 2005, copays were eliminated in lieu of graduated premiums for all families with incomes greater than 150% FPL. Premiums are based on income and effective July 1, 2013 ranged from \$13 per month for a family size of 1 with income more than 150% FPL to \$296 per month for a family size of 6.² Premium rates are adjusted annually in July of each year and exist in three different bands: (i) 150-185% FPL, (ii) 186 - 225% FPL, and (iii) 226-300% FPL. In no case shall the family be charged more than 5% of the family's gross income and the premium invoicing system is designed to not invoice a monthly premium in excess of 5% of the family's gross annual income divided by twelve (12)

If a premium payment is not paid within sixty (60) days, coverage is ended. In addition, beginning September 1, 2014, for families with income over 225% FPL, there is a lock-out period of six months due to non-payment of premium.³

¹ Service delivery to children began September 1, 1998. Service delivery for adults began February 1, 1999.

² Accessed at http://www.dss.mo.gov/fsd/iman/fhc/0900-000-00-appendix_e.pdf.

³ This regulation can be found online at <http://www.sos.mo.gov/adrules/csr/current/13csr/13c70-4.pdf>.

Effective September 1, 2014, Missouri is changing the methodology to determine eligibility to meet CMS requirements, but this implementation is not yet complete.

Eligibility and premiums for the CHIP program (for family size 1 to 6) are summed up in the graphic below produced by MO HealthNet:⁴

MO HealthNet For Kids By Age and Income

% of Federal Poverty Level (FPL)	225+-300	Premium Group (\$108 - \$296)		
	185+-225	Premium Group (\$44 - \$121)		
	150+-185	Non Premium Group	Premium Group (\$13 - \$37)	
	133+-150			
	101+-133			
	0-100			
		0 Years Old	1 thru 5 Years Old	6 thru 18 Years Old

The CHIP program has the following strategic goals:

- Reduce the number of children in Missouri without health insurance coverage.
- Increase access to health care.
- Increase the number of children in Missouri who have access to a regular source of healthcare coverage.
- Improve the health of Missouri's medically uninsured children through the use of preventive care.

This report focuses on three questions, which are outlined in the original legislative mandate to evaluate the CHIP program, and are as follows:

Study Question 1: Has CHIP improved the health of Missouri's children and families?

This will include:

- The number of children participating in the program in each income category.
- The effect of the program on the number of children covered by private insurers.
- The effect of the program on medical facilities, particularly emergency rooms (ERs).
- The overall effect of the program on the health care of Missouri residents.
- The overall cost of the program to the State of Missouri.
- The methodology used to determine availability for the purpose of enrollment, as established by rule.

Study Question 2: What is the impact of CHIP on providing a comprehensive array of community-based wrap-around services for seriously emotionally disturbed children and children affected by substance abuse?

⁴ Accessed at <http://dss.mo.gov/mhd/providers/pdf/puzzledterm.pdf>.

Study Question 3: What is the effect of CHIP on the number of children covered by private insurers? Did the expansion of health care coverage to children whose gross family income is above 185% FPL have any negative effect on these numbers?

Terminology

Throughout this report, we use the following terminology:

- MO HealthNet or Medicaid refers to the Title XIX State Plan Medicaid population.
- CHIP refers to the targeted low-income expansion program for children. The different eligibility groups for MO HealthNet and CHIP are shown in the charts on page 4 and 5.

Data Sources and Approach

This report uses previously aggregated, readily available data from the State of Missouri and the following sources:

- Health Status Indicator Rates — Department of Health and Senior Services (DHSS), Community Health Information Management and Epidemiology (CHIME), Calendar Year 2012.
- Monthly Management Report, Table 7 — Department of Social Services (DSS), Fiscal Year 2014.
- U.S. Census Data, 2000-2012.
- Claims data from calendar year 2013.
- Eligibility data from state fiscal year 2014 and calendar year 2013.
- Journal articles and health publications produced by the federal government and national health policy researchers (credited in the footnotes).

The most recent data available from these sources was used in compiling this year's report. To facilitate the comparison of longitudinal data across this year's report and previous years' reports, the same data sources have been used.

Study Question 1

Has CHIP improved the health of Missouri's children and families?

1. What is the number of children participating in the program in each income category?

For the most recent 12-month period (July 2013 through June 2014) CHIP program enrollment ranged from under 64,000 to more than 70,000 participants (See table below).⁵

CHIP Participants by Premium and Non-Premium Categories				
Month	Year	Up to 150% FPL	151% to 300% FPL	Total
		(Non-Premium)	(Premium)	
July	2013	44,427	25,295	69,722
August	2013	44,996	25,361	70,357
September	2013	44,871	25,395	70,266
October	2013	45,044	25,329	70,373
November	2013	45,060	25,485	70,545
December	2013	44,920	25,636	70,556
January	2014	43,704	25,735	69,439
February	2014	43,215	25,640	68,855
March	2014	43,039	25,750	68,789
April	2014	41,621	24,859	66,480
May	2014	40,519	24,923	65,442
June	2014	38,765	24,490	63,255
Source: Department of Social Services, Monthly Management Reports, Table 7				

2. What is the effect of the CHIP program on the number of children covered by private insurers?

Over the last four years, the rate of private insurance (including employer sponsored insurance (ESI) and self-pay insurance) has remained stable, and has increased only slightly in the past year on trend with the rest of the country. Of note is that as demonstrated in the charts found on page 20 of this report, the upward trend in Missouri is in relationship to an increase in self-pay coverage, not ESI. Missouri's uninsured population was higher than the national average in 2011, after being below the national average for previous years⁶; however, 2012 data finds that these numbers decreased minimally (less than 1%) both nationally and in Missouri. Missouri's rate of public insurance coverage for children (Medicaid and CHIP) remains below the national averages, and increased only 2% in 2013. This means that it is highly unlikely that any crowd-out is occurring, as there has not been a major growth in public insurance coverage, even with the recession and the watermark effect of Marketplace enrollment. This question is explored in greater detail in study question 3 later in the report.

3. What is the effect of the CHIP program on medical facilities, particularly emergency rooms?⁷

Preventable Hospitalizations

- From 2000 to 2012, preventable hospitalizations for the CHIP population decreased by 10.3%. During this time, preventable hospitalizations for the MO HealthNet (Medicaid children) population decreased

⁵Department of Social Services, Monthly Management Reports, Table 7.

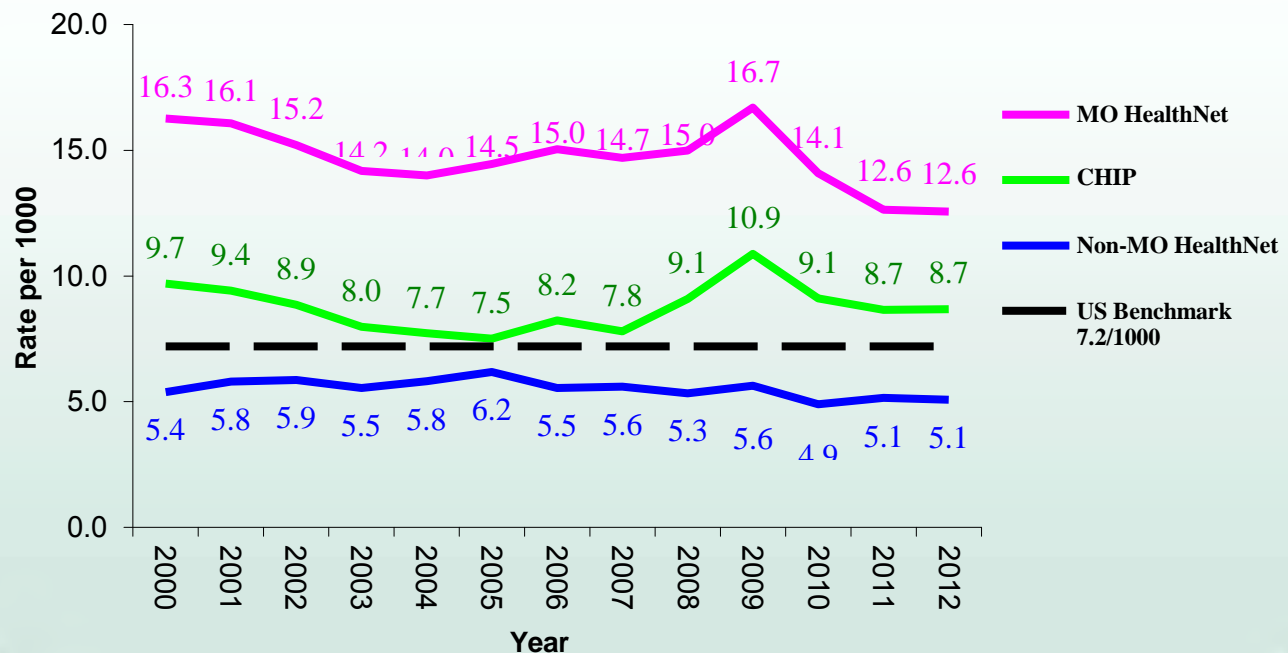
⁶See Study Question 3 for data and further details.

⁷For this question, hospital data from calendar year 2012 was used, which was the most recent set of data available from DSS.

by almost 23%, while the preventable hospitalizations for the non-MO HealthNet group decreased by 5.6%.

- In 2012, the CHIP group's rate of 8.7 preventable hospitalizations per 1,000 children was 21% higher than the national benchmark of 7.2 per 1,000.

Preventable Hospitalizations Per 1,000 Missouri Children (All Diagnoses)

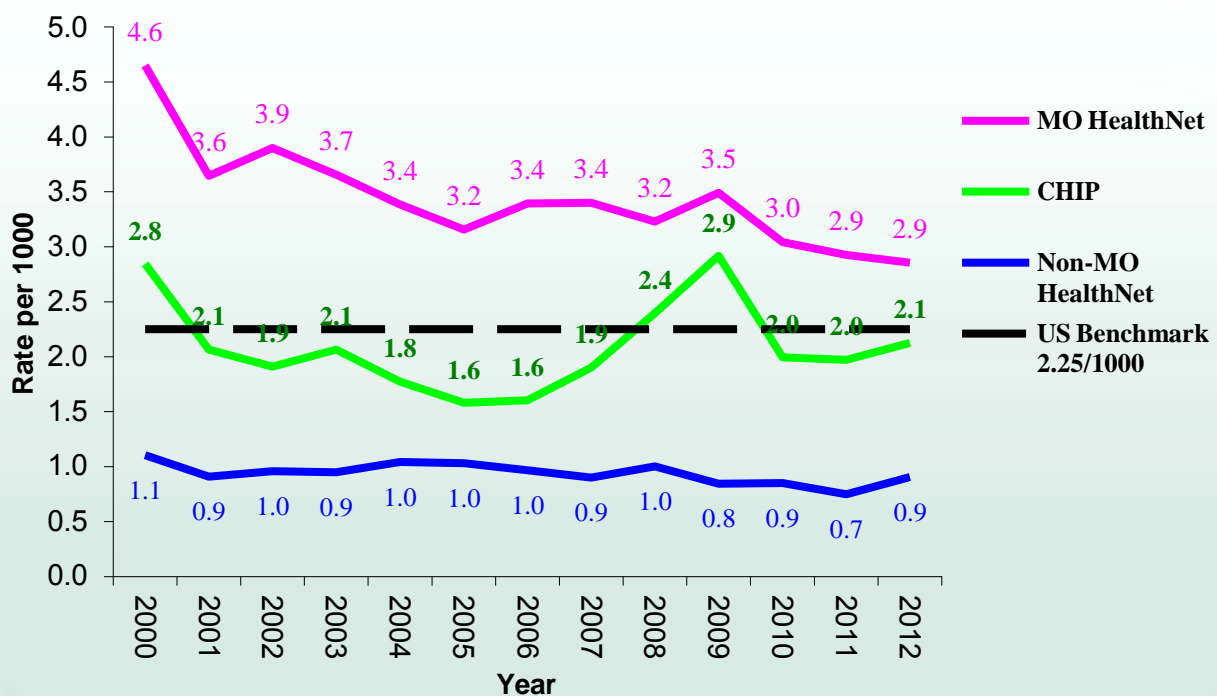


Note: The rates for this measure are close to (but not exactly) the same in 2012 as it was in 2011. Because the chart shows only one decimal place, the numerical values appear the same.

Preventable Asthma Hospitalizations

- From 2000 to 2012, preventable hospitalizations due to asthma for the CHIP population decreased by 25%. During this time, preventable hospitalizations due to asthma for the MO HealthNet (Medicaid children) population decreased by almost 37%, while the preventable asthma hospitalizations for the non-MO HealthNet group decreased by 18%.
- In 2012, the CHIP group's rate of 2.1 preventable asthma hospitalizations per 1,000 children was more than 6% lower than the national benchmark rate of 2.25 preventable asthma hospitalizations.

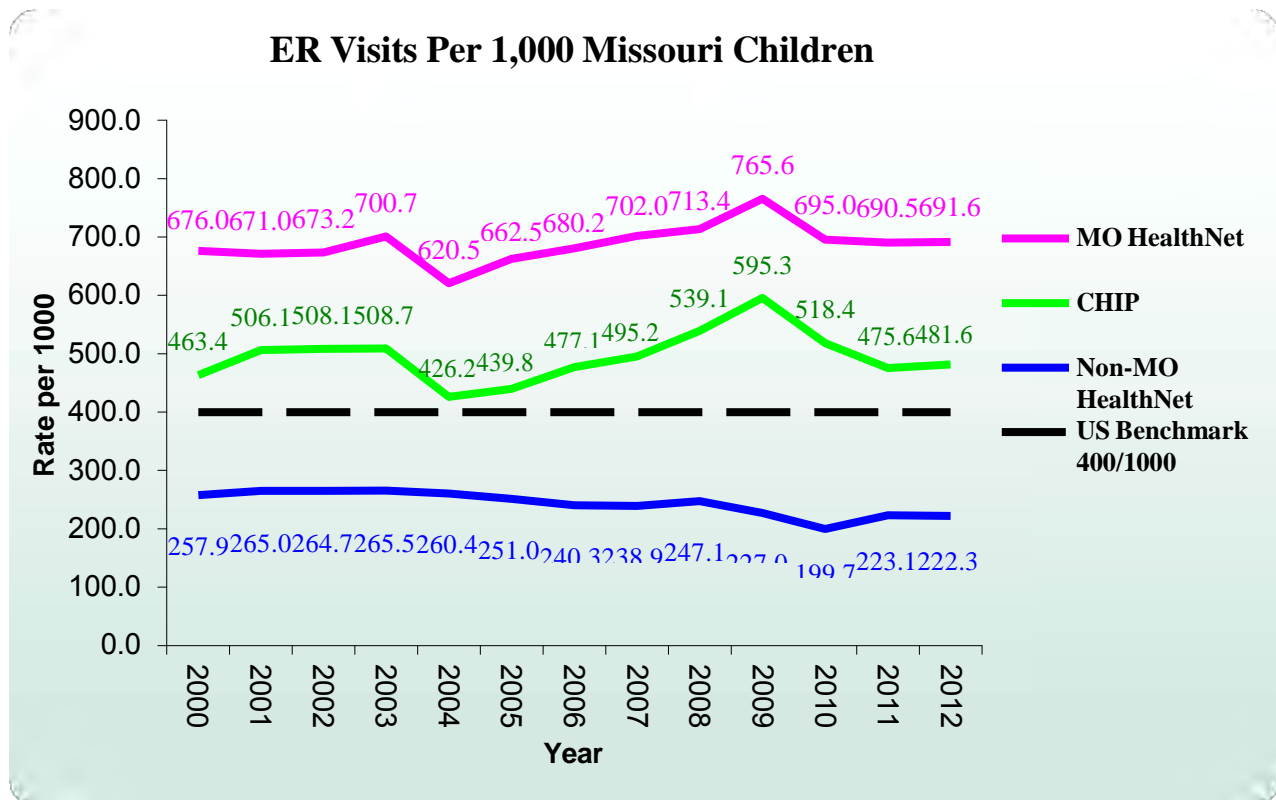
Preventable Asthma Hospitalizations Per 1,000 Missouri Children



Note: The rate for MO HealthNet in this chart of this measure is close to (but not exactly) the same in 2012 as it was in 2011. Because the chart shows only one decimal place, the numerical values appear the same.

ER Visits

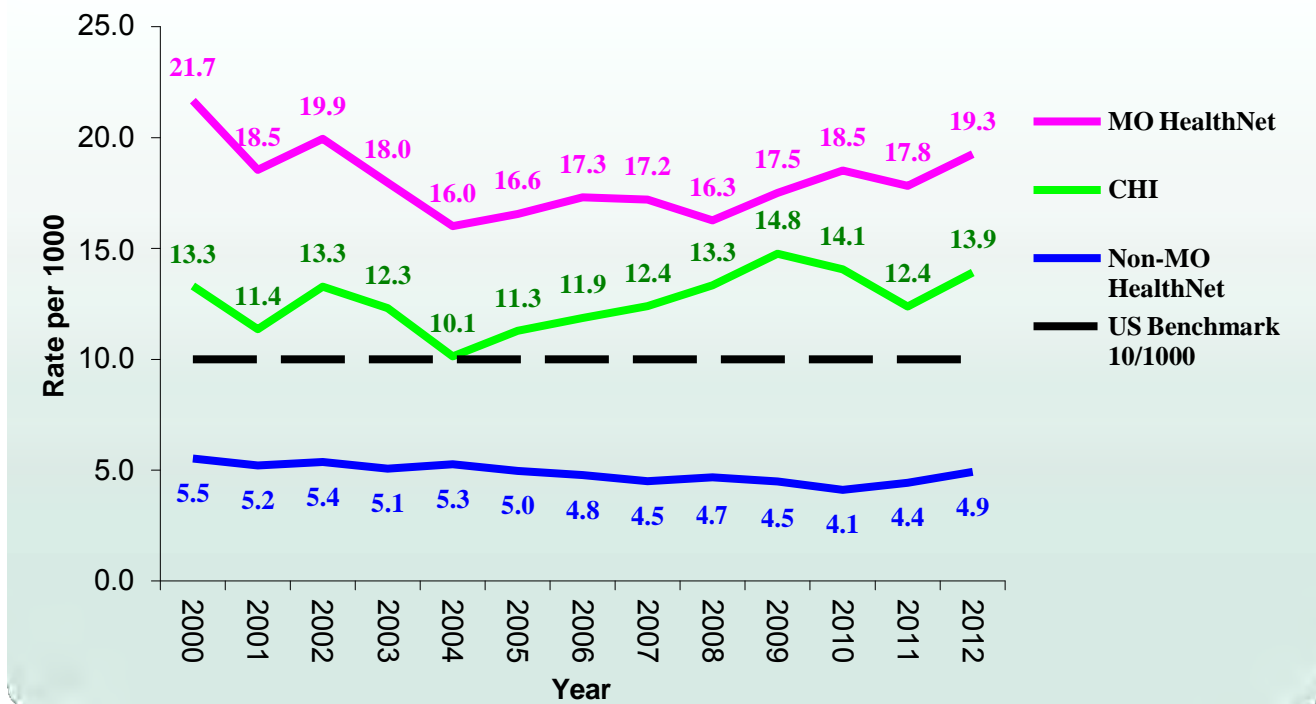
- From 2000 to 2012, ER visits for the CHIP population increased by almost 4%. During this time, ER visits for the MO HealthNet (Medicaid children) population increased by over 2%, while the ER visits for the non-MO HealthNet group decreased by over 13%.
- In 2012, the CHIP group's rate of 481.6 ER visits per 1,000 children was over 20% higher than the national benchmark rate of 400 ER visits.



Asthma ER Visits

- From 2000 to 2012, asthma ER visits for the CHIP population increased by 4.5%. During this time, asthma ER visits for the MO HealthNet (Medicaid children) population decreased by 11%, while the asthma ER visits for the non-MO HealthNet group decreased by over 11%.
- In 2012, the CHIP group rate of 13.9 asthma ER visits per 1,000 children was 39% higher than the national benchmark rate of 10 asthma ER visits per 1,000 children.

Asthma ER Visits Per 1,000 Missouri Children



The data shows a mix of results in measurement of the four indicators for the CHIP population when comparing 2011 to 2012. This is encouraging in the arena of preventable hospitalizations because it continues the positive and stable results experienced in the CHIP program in each indicator. Both of these results are close to aligning with national baseline. A change in policy that may have continued to influence this positive effect is the 2009 requirement that managed care organizations (MCOs) obtain National Committee for Quality Assurance (NCQA) accreditation at a level of “accredited” or better for their MO HealthNet product by October 1, 2011. While causality cannot be proved, it is plausible that this incentive and the success of the MCOs in planning for and achieving initial and continued accreditation are linked to the improvements in the indicators in the reports.

Notable in all four measures is that over the study period (2000-2012) the CHIP population has outperformed the MO HealthNet population significantly and consistently.

ER visits for the CHIP population increased between study years 2011 and 2012. Children with Medicaid and CHIP are more likely to seek care through the ER than both uninsured children and children with private coverage. In a controlled study conducted in 2008, 28% of Medicaid and CHIP children visited the ER at least

once, as compared to 18% of children with private coverage and 15% of uninsured children. Medicaid and CHIP children were also more likely to have had multiple visits to the ER. Barriers to access to primary care and more specifically the opportunity to obtain primary care after business hours remain key determinants in this trend for CHIP and Medicaid children⁸.

A summary of the indicators from 2012 is presented in the following table. Detailed data by region and by year is included as Appendix I to this report.

Summary of 2012 Indicators for Missouri Children Under 19 Per 1,000 Children				
	<u>CHIP</u>	<u>MO HealthNet (Medicaid)</u>	<u>Non-MO HealthNet (Non-Medicaid)</u>	<u>National Benchmark</u>
Preventable Hospitalizations	8.7	12.6	5.1	7.2
Preventable Asthma Hospitalizations	2.1	2.9	0.9	2.3
ER Visits	481.6	691.6	222.3	400.0
Asthma ER Visits	13.9	19.3	4.9	10.0
Data Sources: DHSS; Benchmark: Kazak, Hall and Owings (preventable hospitalizations), Healthy People 2000 (preventable asthma hospitalizations), CDC's Health, United States, 2005 (ER visits), CDC, NCHS Health E-Stats (ER Asthma Visits)				

4. What is the overall effect of the CHIP program on the health care of Missouri residents?

Studies analyzing the impact of health care coverage on children's health show that children who have insurance have better health outcomes than uninsured children. Though the studies are not specific to the State of Missouri, they show the benefits of being enrolled in the CHIP program.

A 2010, issue brief prepared by the Mathematic Policy Research shows the impact of having insurance versus not having insurance on specific health services and conditions:⁹

- Uninsured young children have lower immunization rates than insured children.
- Uninsured children are 70% less likely than insured children to receive medical care for common childhood conditions, such as sore throat, or for emergencies, such as a ruptured appendix.
- When hospitalized, uninsured children are at greater risk of dying than children with insurance.
- Parents of uninsured children are more likely to report unmet need for mental health services for their children.
- Uninsured children are also less likely to receive treatment for chronic conditions such as diabetes and asthma.
- Uninsured children have less access to a usual source of care, community-based services, and services to make transitions to adulthood.

⁸ The Impact of the Children's Health Insurance Program (CHIP): What Does the Research Tell Us? The Kaiser Family Foundation, July 2014

⁹ Mathematica Policy Research, Inc: How Does Insurance coverage improve Health Outcomes?, Bernstein, Chollet and Peterson, April 2010.

A 2012 report published by the Urban Institute for the Medicaid and CHIP Payment and Access Commission (MACPAC)¹⁰ found that for almost every measure of access to health care nationwide, children in CHIP had substantially better access to care than uninsured children and almost equal access to children with employer sponsored insurance. Compared to uninsured children, children on CHIP were more likely to have a usual source of care, had greater access to specialists, and were less likely to have unmet needs due to costs or experience delays in receiving care. The experience of children in CHIP was similar to that of children in ESI, once adjusted for demographics, with similarly high rates of a usual source of care in addition to being less likely to have delayed medical care due to costs.

As reported by MACPAC in their March 2014 report¹¹, the factors that affect health care have become more complex, in particular for families who may qualify at times for marketplace coverage. While eligible, there could be barriers to the cost of marketplace premiums or, more often, the need to “churn” between programs as various points of the family financial cycle are experienced. These social determinants, along with economic recovery instability, have the potential to affect not just enrollment numbers, but the health and wellness of beneficiaries.

5. What is the overall cost of the CHIP program to Missouri?¹²

The CHIP program is funded through federal and State appropriations (both through general State revenue and other State agency dollars).¹³ In FY 2014, the federal share of the CHIP program expenditures was 73.4%.¹⁴ Actual expenditures for FY 2014 are provided below.

CHIP FY 2014 Expenditures	
State	\$31,504,951
Federal	\$135,534,939
Other	\$17,588,097
Total	\$184,627,986

6. What is the methodology used to determine availability for the purpose of enrollment?

13 CSR 70-4.080, State Children's Health Insurance Program, is the Missouri rule that establishes the methodology to determine availability for enrollment.¹⁵

The eligibility provisions for families with gross income of more than 150% FPL are:

- Children must not have health insurance for the six months prior to the application.
- If health insurance was dropped within the six months prior to application, prospective participants must wait six months after coverage was dropped to be eligible. The waiting period does not apply

¹⁰ Urban Institute, National Findings on Access to Health Care and Service Use for Children Enrolled in Medicaid or CHIP, Kenney and Coyer, March 2012.

¹¹ Medicaid and CHIP Payment and Access Commission (MACPAC) Report to the Congress on Medicaid and CHIP, March 2014.

¹² For this question, financial data from fiscal year 2014 was used.

¹³ Other sources of state funding include the Pharmacy Rebate Fund, FRA Fund, Health Initiative Fund, Life Sciences Research Fund, the Premium Fund, etc.

¹⁴ Federal Matching Rate available at <http://www.gpo.gov/fdsys/pkg/FR-2011-11-30/html/2011-30860.htm>.

¹⁵ This regulation can be found online at <http://www.sos.mo.gov/adrules/csr/current/13csr/13c70-4.pdf>. Effective September 1, 2014, Missouri is changing the methodology to determine eligibility to meet CFMS requirements, but this implementation is not yet complete.

to children who lose coverage due to an involuntary loss of employment by their parents, a new position for a parent with a new employer that does not offer coverage, expiration of COBRA coverage, or lapses of coverage due to lifetime maximums or pre-existing conditions.

- Any child identified as having special health care needs — defined as a condition that, left untreated, would result in the death or serious physical injury of a child — who does not have access to affordable ESI will be exempt from the requirement to be without health care coverage for six months and the 30-day waiting period in order to be eligible for services, as long as the child meets all other qualifications for eligibility. Special health care needs are established based on a written statement from the child’s treating physician.
- Parents/guardians of uninsured children must certify the child does not have access to affordable ESI or other affordable available coverage.

In addition to these provisions, the following rules apply to premium payments:¹⁶

- Children in families with gross incomes of more than 150% FPL but less than 225% FPL are eligible for coverage once a premium has been received. Eligibility for the program may begin at the beginning of the month; however, coverage cannot begin until the premium has been received. See the chart on page 5 for the premium categories and amounts.
- Children in families with gross incomes of more than 225% FPL and up to 300% FPL are eligible 30 calendar days after the receipt of the application or when the premium is received, whichever is later. The 30-day waiting period is waived for a child with special health needs, but the premium must still be received.
- The six month waiting period and 30 calendar day delay are not applicable to children already participating in the program when a parent’s income changes.
- Total aggregate premiums cannot exceed 5% of the family’s gross income for a 12-month period.
- Total assets for parents or guardians must be below \$250,000 to be eligible for CHIP coverage.
- Premiums must be paid prior to delivery of service.
- Premiums will be updated annually and take effect on July 1 of each calendar year.

How Premiums Are Set	
Income Category	Monthly Premium Calculation
(1) More than 150% FPL and up to and including 185% FPL	Premium = 4% of monthly income for the family size.
(2) More than 185% FPL and up to and including 225% FPL	Premium = 8% of the monthly income for the family size plus the premium calculated in Category 1.
(3) More than 225% FPL and up to 300% FPL	Premium = 14% of the monthly income for the family size plus the premiums calculated in Categories 1 and 2.

¹⁶ This regulation can be found online at <http://www.sos.mo.gov/adrules/csr/current/13csr/13c70-4.pdf>. Effective September 1, 2014, Missouri is changing the methodology to determine eligibility to meet CMS requirements, but this implementation is not yet complete.

Study Question 2¹⁷

What is the impact of CHIP on providing a comprehensive array of community-based wraparound services for seriously emotionally disturbed (SED) children and children affected by substance abuse?

Wraparound services are a class of treatment and support services provided to a SED child and/or the child's family with the intent of facilitating the child's functioning and transition towards a better mental health state. Wraparound services include family support services, case management, respite care, targeted case management, community support services, transportation support, social and recreational support, basic needs support, and clinical/medical support.

The Department of Mental Health (DMH) and MO HealthNet have developed joint protocols and guidelines for the provision of wraparound services. DMH provides the funding for the services (either full funding or the State's match). DMH also coordinates and oversees the delivery of these services.

Methodology for Data Analysis

Comparisons of utilization of wraparound services across service delivery systems (i.e., fee-for-service (FFS) versus managed care) are focused on evaluating whether MCO enrollment impacts which wraparound services are provided and in what manner they are provided. DSS and DMH data on CHIP program eligibility, MCO enrollment, and wraparound service utilization beginning January 1, 2013 and ending December 31, 2013, were used in this analysis.

There were 1,178 unique children in the CHIP program population who received wraparound services during the study period. For this analysis, the group was further divided into 434 FFS participants and 802 MCO participants; 58 of these received services through both delivery methods at different times during the year and are counted in both categories.

The MCOs are not required by contract to provide wraparound services. However, the MCOs do provide these wraparound services when it is cost effective as a diversion from more intensive levels of care. The average child receiving FFS wraparound services received more services than the average child receiving MCO wraparound services, as illustrated in Chart A on the next page, but both overall received significantly more wraparound services in CY 2013 than in CY 2012. Per policy changes in 2011, DMH has shifted service delivery preferences from targeted case management to community support services, and services traditionally reported as targeted case management are now being provided as community support services. This policy change appears to have had the intended result of increasing the amount of services provided; there is a significant increase in units of service per child, accounted for almost entirely in increased community support services. In addition, family assistance services provided in the past have been phased out in favor of community support services and no family assistance claims appear in the 2013 data. Chart B, on the following page, shows how the mix of services differed between the FFS and MCO populations. For example, 70.5% of the wraparound services provided to the FFS population consisted of community support services, while these services represented 66.6% of the wraparound services provided to the MCO population.

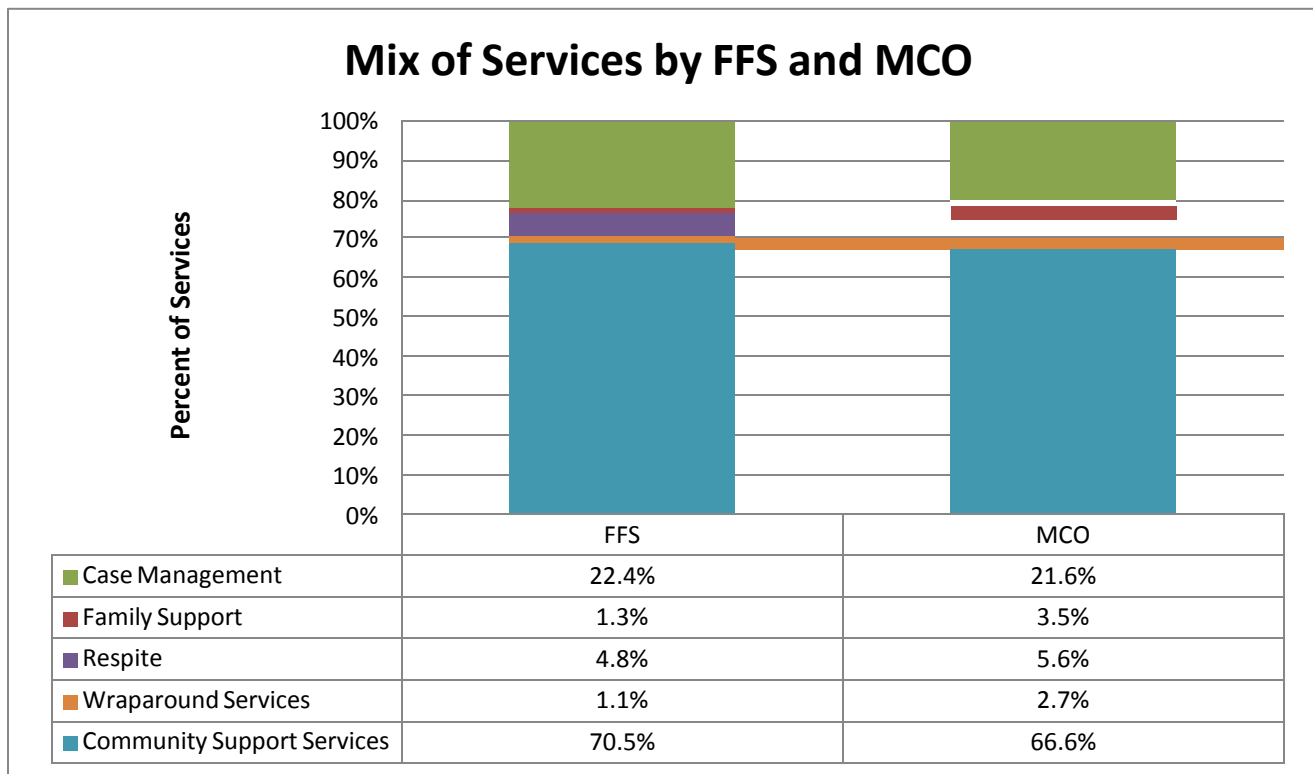
The following charts show utilization rates of wraparound services by type in CY 2013.

¹⁷ For this question, claims and enrollment data from calendar year 2013 was used.

CHART A
Quantity of Services (Units)

Wraparound Services	Family Support	Other Case Management	Respite	Targeted Case Management	Wraparound Services	Community Support Services	Grand Total
Quantity of Services FFS	143	1,859	547	686	122	8,014	11,371
Quantity of Services: MCO	528	3,137	860	170	411	10,196	15,302
Services per Child: FFS	0.3	4.3	1.3	1.6	0.3	18.5	26.2
Services per Child: MCO	0.7	3.9	1.1	0.2	0.5	12.7	19.1

CHART B



These statistics cannot be used on their own to determine the quality of wraparound services received by each population. There may be differences in each population that account for the different types of services. For example, the FFS population is predominantly rural and the MCO population is predominantly urban. As found in previous years' studies, both delivery systems are providing similar numbers of community support services and have shifted away from targeted case management. Additionally, more services are being provided overall, predominantly seen in the volume of community support services to both populations.

Study Question 3

What is the effect of CHIP on the number of children covered by private insurers?

The shift from private health insurance coverage to public coverage, known as crowd-out, is relatively difficult to measure and will become more complex as the marketplace is added to the analysis. Crowd-out is difficult to identify because not all substitution of public for private coverage constitutes crowd-out. A crowd-out situation arises only if the actions taken — people substituting public for private coverage, or employers changing or terminating their insurance offerings — would not have occurred in the absence of the public program. If people would otherwise have become uninsured, enrolling in a public program does not constitute crowd-out.¹⁸

Generally, crowd-out refers to the substitution of publicly funded coverage for existing private coverage. Individuals may choose to forgo coverage available from their employer or in the individual market because publicly funded coverage is more affordable or more comprehensive. Alternatively, employers may choose to drop coverage for their employees once public coverage becomes available for them.

Different ways of defining crowd-out yield different results. Researchers define crowd-out in multiple ways, reflecting both their own perspectives and the idiosyncrasies of their data. All crowd-out estimates are expressed as ratios, but both the numerators and denominators of these ratios may measure different concepts.

The most common definition compares the reduction in the share of the population with private coverage to the increase in the share of the population with public coverage due to the expansion. Researchers using this definition attempt to estimate the changes due solely to the expanded eligibility over the period of years included in the study.

A congressional report on CHIP by Mathematica Policy Research from December 2011¹⁹ concludes that crowd out in the CHIP program nationwide is less than expected:

“While studies differ in their methods and data sources, existing evidence indicates that some level of crowd out is unavoidable but the magnitude of substitution is lower than many expected and in general concerns about CHIP substituting for private coverage have lessened over time...Estimates of substitution rates from population-based studies range from none to as much as 60 percent of the increase in public coverage from CHIP coming from reductions in private coverage (Dubay and Kenney 2009; Gruber and Simon 2008; Lee et al. 2008; Bansak and Raphael 2007; Davidoff et al. 2005; Hudson et al. 2005; LoSasso and Buchmueller 2004; Cunningham et al. 2002). More recent studies using longitudinal data sources and improved methods for handling cases with both public and private coverage...estimate substitution rates ranging from 7 to 30 percent.”

Since 2000, there has been a redistribution of insurance coverage by type in both Missouri and the nation as a whole. Over this period there has been an overall decline in ESI, and that trend continues in 2012. In Missouri from 2008 to 2012, ESI rates for children have fluctuated; the 2012 rate (58.3%) is lower than the 2008 rate (63.5 %), but only slightly lower than the 2011 rate of 59.0%, while the national rate for children in ESI dropped from 58.9% in 2008 to 55.4% in 2012. As ESI shows a consistent downward trend, direct purchase of insurance for children in Missouri has risen from 5.9% in 2011 to 7.2% in 2012. During this time period, the combined U.S. census data for Medicaid and CHIP in Missouri shows an increase in Medicaid/CHIP coverage, from 28.1% in

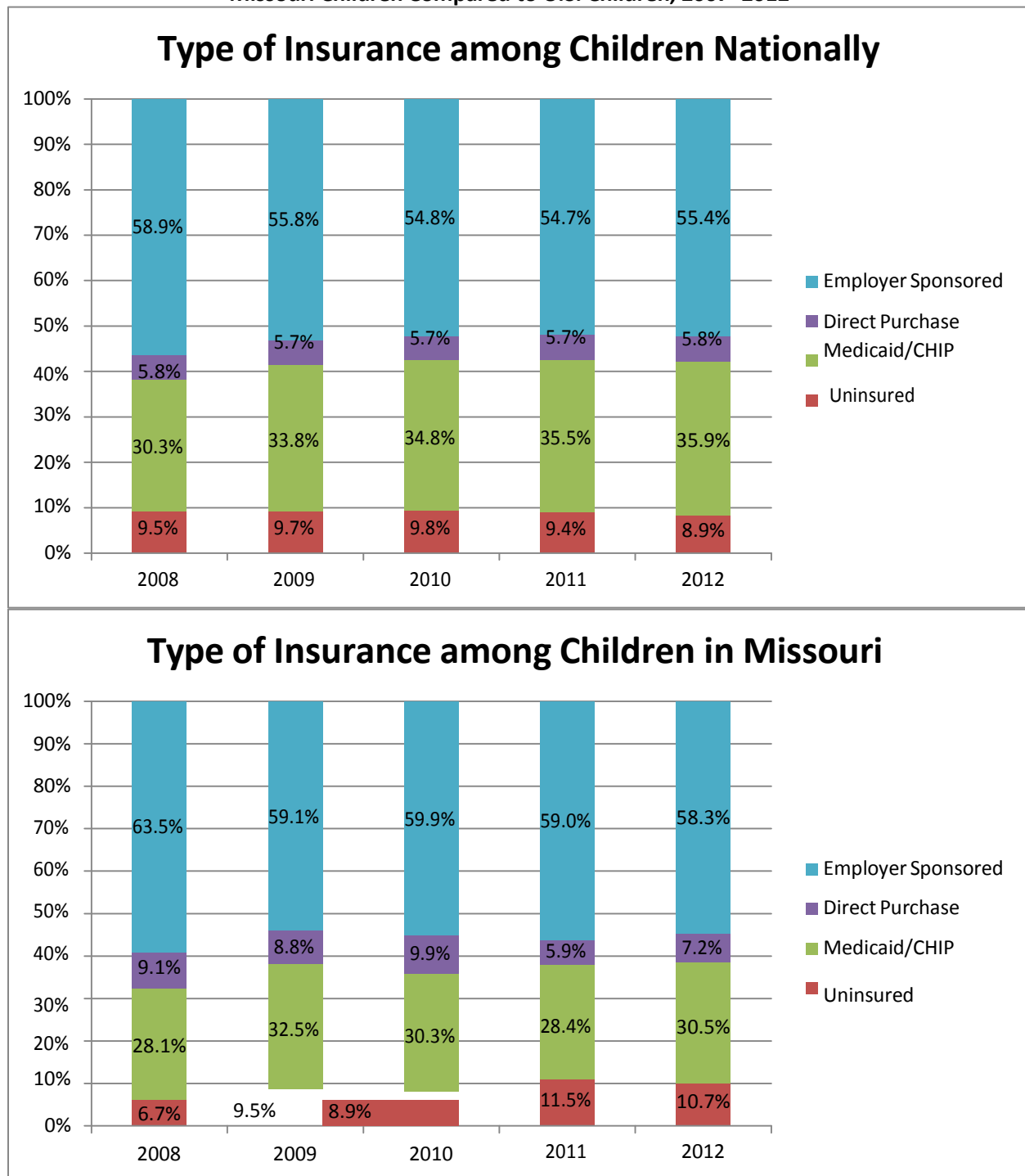
¹⁸ Davidson, G., L. A. Blewett, & K. T. Call (June 2004). *Public Program crowd-out of private coverage: What are the issues?* The Robert Wood Johnson Foundation: Research Synthesis Report No. 5.

¹⁹ Mathematica Policy Research (December 2011). *Children's Health Insurance Program: An Evaluation (1997-2010)*.

2008 to 30.5% in 2012, even as the national figure has risen more significantly from 30.3% in 2008 to 35.9% in 2012. Finally, the rate of uninsured children in the State experienced a slight improvement as it decreased in 2012 to 10.7% after the jump in 2011 to 11.5%; however, the comparison of the uninsured children's rate of 10.7% in 2012 is 4% higher than the 2008 rate of 6.7%.

This data suggests that the expansion of the CHIP program has had little to no impact on the number of children covered by private insurance, and in fact, Missouri is outpacing the rest of the nation in maintaining private health insurance rates, both in overall percentage and in trend in the last five years. The next two charts illustrate these five year trends. We anticipate that there may be changes in future years that may be attributed to implementation of the ACA; however, these data are not available at this early date.

Missouri Children Compared to U.S. Children, 2007–2012²⁰



Much of the research on crowd-out in children’s coverage finds that it is a significant factor only when states expand coverage further up the income scale, since children in moderate income families are more likely to have access to affordable employer-based coverage than their lower-income counterparts, which could be

²⁰ Data is from the U.S. Census data which combines the Medicaid and CHIP programs. Columns do not add up to 100% in this data source, as people can be in more than one category. 2012 is the most recent year’s data available for this measure. Children are aged 0-18.

complicated by marketplace options in some states. Using a broad definition of crowd-out, the Congressional Budget Office concludes that between 25% and 50% of children enrolled in CHIP — which covers children with incomes too high to qualify for Medicaid — previously had private health insurance.²¹

As noted previously, a recent Center for Medicare and Medicaid Services (CMS) analysis by the Ohio State University College of Public Health²² suggests the opposite: that the higher the state's eligibility threshold, the lower the crowd-out around the eligibility threshold. The report estimated threshold crowd-out levels for all 50 states and found no evidence of threshold crowd-out in Missouri, or in any of the other 18 states with an eligibility threshold of 300% FPL. The data also suggests much lower crowd-out overall than previous studies, with an overall state range of 0% to 18%. The report concludes:

“The relatively small crowd-out at all income levels suggests that the discourse on children’s health insurance programs should shift away from crowd-out towards the merits of public programs. Arguments for and against public children’s health insurance programs should be based on benefits of publicly insuring children who otherwise would be uninsured, not on whether previously insured children drop private insurance and move to the public’s payrolls.”

The comparison of Missouri's population by insurance type and status to the national trends over the last five years (above) is a strong indicator that the policies in Missouri designed to minimize crowd-out, like the requirement for six prior months of no coverage before enrolling in CHIP, have been successful. This should be carefully monitored, as the six-month waiting period decreases to 90 days in the latter part of 2014 due to ACA requirements, to see if indications of crowd-out appear.

²¹ Congressional Budget Office, “The State Children’s Health Insurance Program,” May 2007.

²² Medicare and Medicaid Research Review (2013, Volume 3, Number 3). *State Variability in Children’s Medicaid/CHIP Crowd-Out Estimates*.

APPENDIX I:**Hospitalization and Emergency Room Utilization Rates by Payer/Program****APPENDIX I:****Hospitalization and ER Utilization Rates by Payer/Program (2000-2012)**

Review period: January 1, 2012 — December 31, 2012

Data source: Missouri Department of Health and Senior Services (DHSS)

Asthma hospitalizations age < 19

Benchmark = 2.25/1,000 pop.

Healthy People 2000

Rates per 1000 pop.

Cal. Year	Population	Eastern	Central	Western	Other	State
2000	CHIP	5.2	1.8	3.9	1.7	2.8
2001	CHIP	3.0	1.8	2.3	1.3	2.1
2002	CHIP	2.5	1.8	2.9	1.2	1.9
2003	CHIP	2.9	1.3	2.7	1.6	2.1
2004	CHIP	2.9	1.2	1.6	1.2	1.8
2005	CHIP	2.6	0.8	1.6	1.0	1.6
2006	CHIP	2.3	1.0	2.3	0.9	1.6
2007	CHIP	3.5	0.7	1.9	0.8	1.9
2008	CHIP	4.6	1.4	2.1	1.2	2.4
2009	CHIP	4.8	1.8	3.2	1.6	2.9
2010	CHIP	3.6	1.0	1.6	1.2	2.0
2011	CHIP	4.0	0.5	1.6	1.0	2.0
2012	CHIP	4.0	0.7	2.0	1.2	2.1
Change from 2000 to 2012		-24.0%	-59.3%	-48.0%	-28.6%	-25.2%
2000	Non-MO HealthNet	1.3	0.9	1.1	0.9	1.1
2001	Non-MO HealthNet	1.1	0.7	1.0	0.7	0.9
2002	Non-MO HealthNet	1.2	0.8	0.8	0.8	1.0
2003	Non-MO HealthNet	1.1	0.8	1.0	0.7	0.9
2004	Non-MO HealthNet	1.3	1.1	0.8	0.8	1.0
2005	Non-MO HealthNet	1.3	0.6	1.0	0.8	1.0
2006	Non-MO HealthNet	1.2	0.8	0.9	0.7	1.0
2007	Non-MO HealthNet	1.2	0.6	0.9	0.7	0.9
2008	Non-MO HealthNet	1.4	0.7	0.7	0.7	1.0
2009	Non-MO HealthNet	1.1	0.7	0.6	0.6	0.8
2010	Non-MO HealthNet	1.2	0.5	0.6	0.6	0.9
2011	Non-MO HealthNet	1.1	0.4	0.6	0.5	0.7
2012	Non-MO HealthNet	1.2	0.4	0.9	0.6	0.9
Change from 2000 to 2012		-7.7%	-50.5%	-19.3%	-27.5%	-18.0%
2000	MO HealthNet	7.6	3.4	4.5	2.6	4.6
2001	MO HealthNet	4.9	2.9	3.2	2.9	3.6
2002	MO HealthNet	5.3	3.2	3.6	3.0	3.9
2003	MO HealthNet	5.3	2.7	3.1	2.8	3.7
2004	MO HealthNet	5.0	2.3	2.5	2.7	3.4
2005	MO HealthNet	4.6	2.6	3.0	2.1	3.2
2006	MO HealthNet	5.0	3.1	3.0	2.3	3.4
2007	MO HealthNet	5.0	2.3	2.9	2.5	3.4
2008	MO HealthNet	5.6	2.0	2.7	1.9	3.2
2009	MO HealthNet	5.2	2.4	3.4	2.3	3.5
2010	MO HealthNet	4.8	2.0	2.6	2.0	3.0
2011	MO HealthNet	4.9	1.9	2.3	1.8	2.9
2012	MO HealthNet	4.4	1.9	2.6	1.8	2.9
Change from 2000 to 2012		-42.3%	-44.1%	-42.8%	-30.1%	-38.6%

APPENDIX I:**Hospitalization and Emergency Room Utilization Rates by Payer/Program****Asthma ER visits age < 19**

Benchmark = 10/1,000 pop.

Healthy People 2000

Rates per 1000 pop.

Cal. Year	Population	Eastern	Central	Western	Other	State
2000	CHIP	24.7	9.0	19.5	7.1	13.3
2001	CHIP	17.7	5.1	13.5	7.8	11.4
2002	CHIP	19.5	11.5	17.4	8.2	13.3
2003	CHIP	18.4	6.6	17.5	8.3	12.3
2004	CHIP	15.7	5.6	12.0	6.5	10.1
2005	CHIP	18.5	6.8	11.8	7.1	11.3
2006	CHIP	19.9	8.1	13.7	6.3	11.9
2007	CHIP	20.8	5.4	16.0	6.2	12.4
2008	CHIP	22.5	7.5	18.1	5.4	13.3
2009	CHIP	24.7	7.5	16.2	8.4	14.8
2010	CHIP	23.5	6.8	16.0	7.5	14.1
2011	CHIP	21.1	6.3	13.4	6.5	12.4
2012	CHIP	23.8	6.6	16.0	7.1	13.9
Change from 2000 to 2012		-3.8%	-25.8%	-17.7%	0.3%	4.6%
2000	Non-MO HealthNet	7.6	3.0	6.1	3.3	5.5
2001	Non-MO HealthNet	6.6	3.0	6.0	3.3	5.2
2002	Non-MO HealthNet	6.9	2.9	6.1	3.3	5.4
2003	Non-MO HealthNet	6.6	2.8	5.5	3.2	5.1
2004	Non-MO HealthNet	6.9	3.2	5.1	3.5	5.3
2005	Non-MO HealthNet	6.8	3.1	4.8	2.8	5.0
2006	Non-MO HealthNet	6.2	3.1	4.9	3.1	4.8
2007	Non-MO HealthNet	5.7	2.5	5.0	3.1	4.5
2008	Non-MO HealthNet	6.2	2.7	4.6	3.1	4.7
2009	Non-MO HealthNet	6.0	2.9	4.2	2.9	4.5
2010	Non-MO HealthNet	5.6	2.3	4.1	2.6	4.1
2011	Non-MO HealthNet	5.8	2.6	4.8	2.8	4.4
2012	Non-MO HealthNet	6.5	2.3	5.8	2.9	4.9
Change from 2000 to 2012		-14.5%	-23.6%	-5.1%	-11.6%	-11.0%
2000	MO HealthNet	36.2	13.2	26.2	10.0	21.7
2001	MO HealthNet	28.1	10.7	22.8	9.7	18.5
2002	MO HealthNet	31.0	11.9	22.9	10.6	19.9
2003	MO HealthNet	28.0	11.6	20.2	13.4	18.0
2004	MO HealthNet	25.0	9.9	17.6	8.9	16.0
2005	MO HealthNet	26.5	11.1	17.8	8.8	16.6
2006	MO HealthNet	30.1	11.2	17.1	8.2	17.3
2007	MO HealthNet	28.1	11.2	18.7	8.6	17.2
2008	MO HealthNet	26.9	9.5	17.3	7.5	16.3
2009	MO HealthNet	28.8	11.1	18.5	8.1	17.5
2010	MO HealthNet	30.0	10.2	21.0	8.6	18.5
2011	MO HealthNet	29.0	9.4	19.0	8.9	17.8
2012	MO HealthNet	30.7	10.2	22.2	9.0	19.3
Change from 2000 to 2012		-15.0%	-22.3%	-15.1%	-10.4%	-11.1%

APPENDIX I:
Hospitalization and Emergency Room Utilization Rates by Payer/Program
ER visits age < 19

Benchmark = 400/1,000 pop.

Health, United States, 2005, CDC

Rates per 1000 pop.

Cal. Year	Population	Eastern	Central	Western	Other	State
2000	CHIP	367.6	393.4	388.4	546.3	463.4
2001	CHIP	490.1	497.3	471.6	531.9	506.1
2002	CHIP	525.9	496.8	467.8	517.9	508.1
2003	CHIP	511.0	521.9	465.8	590.0	508.7
2004	CHIP	403.2	467.2	381.3	453.2	426.2
2005	CHIP	436.3	467.8	390.7	459.8	439.8
2006	CHIP	478.9	528.9	421.4	490.7	477.1
2007	CHIP	517.3	516.3	467.8	487.5	495.2
2008	CHIP	562.8	526.8	539.4	524.6	539.1
2009	CHIP	646.7	533.7	576.0	589.6	595.3
2010	CHIP	576.1	459.2	485.0	513.6	518.4
2011	CHIP	501.9	465.0	432.0	484.7	475.6
2012	CHIP	535.6	456.0	447.5	467.8	481.6
Change from 2000 to 2012		45.7%	15.9%	15.2%	-14.4%	3.9%
2000	Non-MO HealthNet	262.1	218.6	269.9	256.6	257.9
2001	Non-MO HealthNet	256.6	244.9	296.3	259.9	265.0
2002	Non-MO HealthNet	263.4	251.4	284.4	255.6	264.7
2003	Non-MO HealthNet	265.3	253.1	281.8	256.9	265.5
2004	Non-MO HealthNet	244.6	271.4	268.5	274.2	260.4
2005	Non-MO HealthNet	243.9	442.7	248.1	258.4	251.0
2006	Non-MO HealthNet	231.1	252.4	238.7	251.5	240.3
2007	Non-MO HealthNet	232.5	236.2	233.4	253.5	238.9
2008	Non-MO HealthNet	227.7	226.3	234.6	309.9	247.1
2009	Non-MO HealthNet	216.8	216.6	219.9	258.6	227.0
2010	Non-MO HealthNet	196.4	182.0	189.0	226.0	199.7
2011	Non-MO HealthNet	214.0	196.9	226.0	250.3	223.1
2012	Non-MO HealthNet	222.9	192.9	230.1	230.1	222.3
Change from 2000 to 2012		-15.0%	-11.7%	-14.8%	-10.3%	-13.8%
2000	MO HealthNet	713.6	681.7	637.0	656.8	676.0
2001	MO HealthNet	642.4	704.4	628.4	709.9	671.0
2002	MO HealthNet	674.9	710.0	581.7	708.6	673.2
2003	MO HealthNet	691.3	754.9	618.1	737.8	700.7
2004	MO HealthNet	596.3	700.9	557.1	654.1	620.5
2005	MO HealthNet	602.1	765.1	570.7	688.0	662.5
2006	MO HealthNet	696.9	547.5	575.4	697.4	680.2
2007	MO HealthNet	709.8	769.4	623.6	719.6	702.0
2008	MO HealthNet	717.6	727.6	711.6	703.8	713.4
2009	MO HealthNet	794.2	744.9	748.2	756.8	765.6
2010	MO HealthNet	740.8	654.7	666.6	684.8	695.0
2011	MO HealthNet	703.9	659.0	632.5	730.8	690.5
2012	MO HealthNet	747.8	658.6	659.2	670.1	691.6
Change from 2000 to 2012		4.8%	-3.4%	3.5%	2.0%	2.3%

APPENDIX I:**Hospitalization and Emergency Room Utilization Rates by Payer/Program****Preventable hospitalizations age < 19**

Benchmark = 7.2/1,000 pop.

Kozak, Hall and Owings.

Rates per 1000 pop.

Cal. Year	Population	Eastern	Central	Western	Other	State
2000	CHIP	10.5	8.0	9.5	9.8	9.7
2001	CHIP	9.9	8.8	6.7	10.5	9.4
2002	CHIP	6.8	9.2	8.9	10.0	8.9
2003	CHIP	6.7	6.6	8.2	9.9	8.0
2004	CHIP	7.0	7.0	6.9	8.8	7.7
2005	CHIP	7.5	6.4	6.2	8.4	7.5
2006	CHIP	8.2	8.1	6.3	9.2	8.2
2007	CHIP	8.7	6.3	7.7	7.7	7.8
2008	CHIP	11.1	8.3	7.3	8.9	9.1
2009	CHIP	13.4	8.0	10.0	10.5	10.9
2010	CHIP	10.7	7.1	8.4	9.0	9.1
2011	CHIP	11.1	8.0	6.2	8.3	8.7
2012	CHIP	10.9	6.6	5.6	9.6	8.7
Change from 2000 to 2012		3.6%	-17.8%	-40.6%	-1.4%	-10.4%
2000	Non-MO HealthNet	5.5	4.9	4.9	5.7	5.4
2001	Non-MO HealthNet	6.0	5.6	5.0	6.1	5.8
2002	Non-MO HealthNet	5.9	6.4	5.1	6.2	5.9
2003	Non-MO HealthNet	5.7	6.1	4.7	5.8	5.5
2004	Non-MO HealthNet	6.1	6.3	4.7	6.2	5.8
2005	Non-MO HealthNet	6.5	7.0	4.9	6.5	6.2
2006	Non-MO HealthNet	5.9	5.8	4.5	5.9	5.5
2007	Non-MO HealthNet	5.9	5.2	4.6	5.0	5.6
2008	Non-MO HealthNet	6.0	5.7	3.9	5.4	5.3
2009	Non-MO HealthNet	6.5	5.8	3.9	5.7	5.6
2010	Non-MO HealthNet	5.8	5.1	3.7	4.4	4.9
2011	Non-MO HealthNet	5.8	4.9	4.2	5.1	5.1
2012	Non-MO HealthNet	5.6	4.3	3.9	5.6	5.1
Change from 2000 to 2012		1.7%	-12.5%	-19.1%	-1.2%	-5.8%
2000	MO HealthNet	17.8	15.0	13.5	16.6	16.3
2001	MO HealthNet	14.9	15.0	12.1	19.3	16.1
2002	MO HealthNet	13.7	14.8	12.0	18.2	15.2
2003	MO HealthNet	13.5	13.7	10.4	16.8	14.2
2004	MO HealthNet	12.8	12.5	10.6	16.1	14.0
2005	MO HealthNet	13.3	14.5	11.3	17.0	14.5
2006	MO HealthNet	14.3	14.7	11.3	17.7	15.0
2007	MO HealthNet	14.3	13.6	11.1	17.1	14.7
2008	MO HealthNet	16.5	13.5	10.6	17.1	15.0
2009	MO HealthNet	17.5	15.8	12.6	19.0	16.7
2010	MO HealthNet	15.2	12.4	11.0	15.7	14.1
2011	MO HealthNet	14.6	11.6	9.3	13.4	12.6
2012	MO HealthNet	13.3	11.7	9.0	14.7	12.6
Change from 2000 to 2012		-25.4%	-21.6%	-33.7%	-11.4%	-22.8%

APPENDIX II:
DMH-DSS Wraparound Service Codes and Titles

APPENDIX II:
DMH-DSS Wraparound Service Codes and Titles

Review period: January 1, 2013 — December 31, 2013

Wraparound Services (for children with SED and those affected by Substance Abuse)	
Procedure Code	Description
02500H	FAMILY SUPPORT
20000H	CASE MNGMT-BACHELOR IND
20001H	CASE MNGMT-PARAPROFESS IND
20003H	CASE MNGMT-PHYSICIAN IND
20004H	CASE MNGMT-LIC QMHP IND
20005H	CASE MNGMT-LIC PSYCH IND
20006H	CASE MNGMT-AD PR NURSE IND
39601W	WRAP-AROUND SRVCS-YOUTH IND
440001	RESPIRE CARE - IND
H0036K	COMMUNITY SUPPORT
Y3127K	TARGET CASE MGMT (TCM) YTH
Y3128K	TARGET CASE MGMT (TCM) YTH